

On a Suspected New Variable Star in Corona Borealis.

By G. F. Chambers.

In Birmingham's very interesting and valuable Catalogue of Red Stars (*Transactions, Royal Irish Academy*, vol. xxvi., p. 281) there occurs under the number 361 an entry as follows:—

“ ‘Cape Obs.: fine ruby; 9.5.’ *B's Obs.*: 1873, March 14 and 19, and April 20, not seen. 1874, April 10, not seen. *Dublin Obs.*: Ball, 1876, Aug. 1, no star of 8.5 mag. in this position.”

The position given by Birmingham is (for 1885) as follows:—

R.A. 15^h 45^m 26^s. Decl. +39° 54' 7".

In the course of a systematic re-observation of all Birmingham's red stars, which I have been carrying on for some years past, I came to Birmingham's 361st object on 1885, August 13, and setting my telescope to the assigned place I found at once in the field a conspicuously red star which could not possibly have escaped the notice of two such experienced observers as Mr. Birmingham and Dr. Ball had it been visible in 1873–4–6.

I will here transcribe the entry made in my Observatory Book under 1885, August 13:—

“ A star, distinctly red, found in $\delta + 39^\circ 55'$ and slightly, say 32° , *f*, as estimated by reticulated micrometer, the place assigned for 361 Birm. Colour, most evident; mag. say 8. The field contained an equilateral triangle of stars, one side of which was nearly in the Meridian; the suspected var. was about two-fifths the distance from corner to corner of the triangle, reckoning from N. to S. The most southerly star and the suspected var. were about equal—perhaps the star slightly the brighter—but the other two stars of the triangle were each somewhat fainter.”

I was thus particular in writing down these details in order to facilitate the re-observation of the group next year after conjunction with the Sun. The Declination circle of my instrument (6-inch Grubb, power 75) was in good adjustment, and I can rely on the value given above for the Declination of the star, but I am less able to guarantee the exactness of the R.A. to a few seconds. It is to be noted, however, that Birmingham's Catalogue contains no star anywhere within reach which I could have mistaken.

Sir J. Herschel having seen this star at the Cape about 1830, and Birmingham and Ball having missed it 1873–6, I hope it will hereafter appear that I was justified in reporting it as an addition to our list of known variables. I have examined the star on several occasions since August 13, but I am not as yet able to feel sure that it has undergone any change.

*Northfield Grange Observatory,
Eastbourne, Sussex:
1885, Sept. 28.*

Observations of Comet 1884 I. (Pons-Brooks) made at the Royal Observatory, Cape of Good Hope.

(Communicated by D. Gill, LL.D., F.R.S., H.M. Astronomer.)

1884.	Cape Mean Time.			Comet - Δ		No. of Comp.	Obs. ver.	Comet's App. R.A.			Log. par. factor.	Reductions to Apparent Place.		Comp. Star.
	h	m	s	m	s			h	m	s		s	"	
Jan. 16	8 38	38.2	-2	3.65		4	F	23	23	28.29	8.729	-0.08	+ 0.8	I
	8 47	0.6			+ 5 55.6	3	F							I
	8 45	13.2	-0	51.39	+ 5 34.6	4.4	F	0	9	8.20	8.744	-0.12	- 4.9	2
	8 53	42.2	-0	52.31		8	F	0	9	7.28	8.749			2
26	8 44	29.2	-3	27.81	-2 50.0	8.8	F	0	11	32.46	8.772	-0.15	- 6.0	3
	9 7	36.1	+3	25.46	+ 1 0.2	6.7	F	0	19	25.31	8.773	-0.21	- 6.7	4
Feb. 2	8 44	31.5	-1	30.04	-3 37.2	8.8	F	0	23	4.33	8.767	-0.21	- 7.4	5
	8 37	5.3	-0	25.57	-3 12.9	3.3	F	0	36	40.74	8.786	-0.29	- 8.9	6
	8 46	21.4	-6	18.13	+ 6 26.9	2.2	F	0	36	42.45	8.790	-0.26	- 9.3	7
	8 25	35.6	+1	24.83	-2 0.1	8.8	F	0	42	47.55	8.783	-0.34	- 9.5	8
6	8 27	16.6	+0	4.11	+ 3 58.1	20.20	F	0	48	32.92	8.795	-0.38	-10.1	9
	8 33	44.0	-2	39.04	-3 42.30	8.8	F	0	51	17.98	8.804	-0.38	-10.5	10
9	8 51	35.7	+0	3.21		12	F	0	56	34.50	8.823	-0.42	-11.1	11
	9 3	28.4			-8 1.6	10	F	-35	29	26.7	9.577 _n			11